Date: Fri, 9 Sep 94 04:30:42 PDT
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>
Errors-To: Ham-Space-Errors@UCSD.Edu
Reply-To: Ham-Space@UCSD.Edu
Precedence: Bulk
Subject: Ham-Space Digest V94 #249
To: Ham-Space

Ham-Space Digest   Fri, 9 Sep 94   Volume 94 : Issue 249

Today's Topics:

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

Date: Thu, 08 Sep 94 08:31:27 EST
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!wupost!slacc.com!
sraike@network.ucsd.edu
Subject: DSS Mail Order Outlets
To: ham-space@ucsd.edu

Does anyone know of a mail order outlet with RCA DSS systems in stock?
I live in St. Louis and the systems might not be available until the
first of the year. I'm anxious. Thanks,

Stu
sraike@slacc.com

--
SLACC STACK BBS - St. Louis, Missouri USA
The Bulletin Board Service of the St. Louis Area Computer Club
For information, email to: server@slacc.com   Subject: HELP
+1 314.367.1903

Date: Wed, 07 Sep 1994 19:56:13 -0400
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!europa.eng.gtefsd.com!
news.umbc.edu!haven.umd.edu!cs.umd.edu!newsfeed.gsfc.nasa.gov!n3kwu.gsfc.nasa.gov!
user@network.ucsd.edu
Subject: listen in on space shuttle in Michigan?
To: ham-space@ucsd.edu

In article <ncschult.778910553@vela.acs.oakland.edu>,
ncschult@vela.acs.oakland.edu (N C Schultheiss) wrote:

> I have a very long list of freqs.Iwant to know if I can listen in while
> the shuttle is up next week?I have a pro 43.
>
> Thanks in advance,NCS

Don't know about local stuff but if you have an HF reciever we will be on

3,860 and 7,185 KHz
14,295 and 21,395 KHz

during the mission of STS-64

Jim Blackwell, N3KWU
President, Goddard Amateur Radio Club

Date: Wed, 07 Sep 1994 22:41:08 -0400
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!europa.eng.gtefsd.com!
sundog.tiac.net!si.tiac.net!user@network.ucsd.edu
Subject: STS-64 ATL
To: ham-space@ucsd.edu

MacSPOC Users-

The enclosed attitude time line (ATL) reflects STS-64 prelaunch planning
and is only accessed by MacSPOC v1.5. To access the ATL by default
whenever v1.5 loads, store it in the same folder as the MacSPOC
application using the name "ATL".

-Dan Adamo
adamod@aol.com

========cut here===========
```
000/00:30:00.000  OMS - 2                 INTL   332.000  120.000   24.000
```

000/01:12:00.000	Post Insertion	LVLH	0.000	180.000	270.000
000/03:46:00.000	+X RCS Orb Trim	INTL	236.000	182.000	326.000
000/04:10:00.000	LVLH Hold	LVLH	89.860	16.280	15.080
000/04:28:00.000	+X RCS Orb Circ	INTL	302.000	9.000	3.000
000/04:55:00.000	IMU Align	INTL	305.000	13.000	11.000
000/05:10:00.000	LITE Checkout	LVLH	90.000	90.000	85.000
000/16:45:00.000	IMU Align	INTL	290.000	54.000	29.000
000/17:05:00.000	LITE Run A	LVLH	185.000	0.000	0.000
000/22:00:00.000	H2O Dump	LVLH	0.000	180.000	90.000
001/04:35:00.000	LITE Run B	LVLH	355.000	180.000	0.000
001/14:50:00.000	LITE Run C/D	LVLH	90.000	90.000	85.000
002/19:11:00.000	LMT Setup	LVLH	0.000	215.000	90.000
002/19:16:00.000	Sweep Setup	LVLH	185.000	0.000	0.000
002/19:55:00.000	Sweep Mnvr 1	LVLH	210.000	0.000	0.000
002/19:55:13.000	Sweep Mnvr 2	LVLH	150.000	0.000	0.000
002/19:55:43.000	Sweep Mnvr 3	LVLH	210.000	0.000	0.000
002/19:56:13.000	Sweep Mnvr 4	LVLH	185.000	0.000	0.000
002/21:25:00.000	Sweep Mnvr 1	LVLH	210.000	0.000	0.000
002/21:25:13.000	Sweep Mnvr 2	LVLH	150.000	0.000	0.000
002/21:25:43.000	Sweep Mnvr 3	LVLH	210.000	0.000	0.000
002/21:26:13.000	Sweep Mnvr 4	LVLH	185.000	0.000	0.000
003/02:55:00.000	IMU -Z COAS	INTL	113.000	312.000	319.000
003/03:35:00.000	LITE Run E	LVLH	5.000	180.000	0.000
003/13:20:00.000	AMOS PRCS-ZERO	LVLH	34.500	180.000	0.000
003/13:51:00.000	H2O Dump	LVLH	0.000	180.000	90.000
003/22:24:00.000	SPARTAN Deploy	INTL	318.800	209.900	43.190
003/23:50:00.000	SEP 3 +X RCS	INTL	124.000	11.000	22.000
004/00:10:00.000	LITE Run F	LVLH	175.000	0.000	0.000
004/14:59:00.000	IMU Align	INTL	305.000	13.000	11.000
004/15:15:00.000	LITE Run G	LVLH	90.000	90.000	85.000
004/20:30:00.000	LMT Setup	LVLH	0.000	215.000	90.000
004/20:35:00.000	LITE Run G	LVLH	90.000	90.000	85.000
004/21:50:00.000	LMT Setup	LVLH	0.000	215.000	90.000
004/21:55:00.000	LITE Run G	LVLH	90.000	90.000	85.000
004/23:20:00.000	LMT Setup	LVLH	0.000	215.000	90.000
004/23:25:00.000	LITE Run G	LVLH	90.000	90.000	85.000
004/23:38:00.000	LMT Setup	LVLH	0.000	215.000	90.000
004/23:43:35.000	LITE Run G/H	LVLH	90.000	90.000	85.000
005/13:24:00.000	IMU Align	INTL	305.000	13.000	11.000
005/13:45:00.000	-ZLV Nose South	LVLH	0.000	180.000	90.000
005/17:07:00.000	+X RCS NC4	INTL	278.000	93.000	19.000
005/17:31:00.000	-Y Target Track	LVLH	90.000	280.000	0.000
005/19:33:00.000	RADAR Target Track	LVLH	325.000	270.000	0.000
005/20:32:00.000	Post Ti -Z Trk	LVLH	0.000	270.000	0.000
005/21:05:00.000	-Z Target Track	LVLH	0.000	300.000	0.000
005/21:08:00.000	Inertial Approach	INTL	146.000	209.000	353.000
005/22:35:00.000	Post Grapple	LVLH	0.000	180.000	0.000
006/00:10:00.000	OMS HITE	INTL	210.000	347.000	340.000

006/00:32:00.000	LVLH Hold	LVLH	0.770	197.460	359.680
006/01:00:00.000	OMS CIRC	INTL	151.000	167.000	20.000
006/01:20:00.000	H2O Dump	LVLH	0.000	180.000	90.000
006/03:15:00.000	LITE Run I	LVLH	185.000	0.000	0.000
006/13:17:00.000	IMU Align	INTL	104.000	305.000	334.000
006/13:37:00.000	SAFER -ZLV	LVLH	0.000	180.000	270.000
006/18:30:00.000	Prec Flt Setup	LVLH	307.450	52.550	324.070
006/18:40:00.000	Inertial Hold	INTL	82.410	218.500	34.990
006/19:00:00.000	SAFER -ZLV	LVLH	0.000	180.000	270.000
006/20:25:00.000	Prec Flt Setup	LVLH	307.450	52.550	324.070
006/20:35:00.000	Inertial Hold	INTL	128.160	294.960	359.400
006/20:55:00.000	SAFER -ZLV	LVLH	0.000	180.000	270.000
007/02:00:00.000	LITE Run J	LVLH	270.000	270.000	85.000
007/13:15:00.000	LITE Run X	LVLH	270.000	90.000	275.000
007/20:35:00.000	SOPA-H2O-ROMPS	LVLH	0.000	180.000	85.000
008/14:30:00.000	FCS Checkout	LVLH	275.000	90.000	0.000
008/18:05:00.000	H2O Dump	LVLH	0.000	180.000	85.000
009/00:40:00.000	IMU Align	INTL	308.000	35.000	355.000
009/01:00:00.000	HUD Cal	INTL	308.000	33.000	341.000
009/01:24:00.000	-ZLV ROMPS	LVLH	0.000	180.000	90.000
009/12:43:00.000	IMU Align	INTL	308.000	35.000	355.000
009/13:05:00.000	-ZLV Nose South	LVLH	0.000	180.000	90.000
009/14:50:00.000	Rad Coldsoak	INTL	126.620	4.120	352.810
009/16:08:00.000	D-O IMU Align	INTL	185.000	205.000	346.000
009/16:24:00.000	D-O IMU Verif	INTL	54.000	134.000	14.000
009/16:30:00.000	D-O Thermal	INTL	88.000	332.000	357.000
009/18:51:00.000	D-O Burn KSC	INTL	207.000	350.000	324.000
009/19:10:00.000	MM 303	INTL	136.000	215.000	4.000
009/19:31:00.000	MM 304	LVLH	0.000	40.000	0.000

Date: Wed, 07 Sep 1994 22:39:56 -0400
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!europa.eng.gtefsd.com!
sundog.tiac.net!si.tiac.net!user@network.ucsd.edu
Subject: STS-64 Earth Obs Database
To: ham-space@ucsd.edu

MacSPOC Users-

The enclosed earth observations site database will be used by STS-64's crew during their upcoming mission. To access the database by default whenever MacSPOC loads, store it in the same folder as the MacSPOC application using the name "Earth Obs".

-Dan Adamo
adamod@aol.com

========cut here===========

C040	Edmonton, Canada	53.5	-113.5	12
C048	St. Johns, Newfoundland	47.5	-52.8	80
T052	Scottish Highlands	57.0	-4.5	12
T059	Alps	46.5	10.5	12
T060	Rhine Graben/German Deforestation	49.3	10.0	12
T066	Dinaric Alps	44.5	17.0	12
T213	Australian Alps	-36.0	148.5	6
T215	Tasmania	-42.0	146.5	6
T216	North Island	-38.0	175.5	6
T252	Coastal/Cascade Range	44.5	-122.5	12
T268	Nebraska Sand Hills	42.0	-102.0	12
T274	Chicago - Milwaukee Area	42.5	-88.0	12
T284	Newfound./Nova Scotia Fault Zone	47.0	-61.5	80
T422	Iberian Peninsula	39.0	-4.5	18
T575	Lake Winnipeg/Manitoba	52.0	-99.0	12
W018	Black Sea, Bosporus	43.0	33.0	6
W020	Sea Of Azov	46.0	37.0	12
W021	Caspian Sea	42.0	50.0	6
X004	Great Wall of China	38.0	107.8	30
X023	Melbourne	-37.9	145.0	6
X028	London, England	51.3	-0.1	12
X029	Dublin, Ireland	53.2	-6.2	12
X030	Edinburgh, Scotland	55.6	-3.1	12
X031	Glasgow, Scotland	55.5	-4.2	12
X032	Salisbury, England	51.1	-1.5	12
X033	Paris, France	48.5	2.2	12
X034	Madrid, Spain	40.2	-3.4	18
X035	Rome, Italy	41.5	12.3	12
X036	Athens, Greece	37.6	23.4	12
X037	Oslo, Norway	59.6	10.5	12
X038	Cairo, Egypt	30.0	31.2	12
X039	Vienna, Austria	48.1	16.2	12
X040	Southwest Wisconsin	43.5	-90.0	12
X041	Cold Lake AFB, Alberta	54.3	-110.2	12
X042	Guadalcanal	-9.7	160.3	6
X043	Angola/Namibia Border	-17.6	19.0	18
X044	Fraser Island	-25.2	153.2	6
X045	Chernobyl	51.3	30.3	12
X046	Regina, Saskatchewan	50.4	-104.4	12
X047	Boise, Idaho	43.7	-116.2	12
X048	Helena, Montana	46.7	-112.0	12
X049	Bismarck, North Dakota	46.8	-100.8	12
X050	Pierre, South Dakota	44.4	-100.3	12
X051	Lincoln, Nebraska	40.8	-96.7	12
X052	Minneapolis/St. Paul, Minnesota	45.0	-93.3	12
X053	Rarotonga	-21.3	-159.8	6

Date: Wed, 07 Sep 1994 22:38:39 -0400
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!europa.eng.gtefsd.com!
sundog.tiac.net!si.tiac.net!user@network.ucsd.edu
Subject: STS-64 MacSPOC Checkpoint #0
To: ham-space@ucsd.edu

MacSPOC Users-

The enclosed checkpoint will become valid at 0/04:48 MET following an ontime, nominal STS-64 launch Friday, September 9 at 3:30 PM CDT. The checkpoint reflects prelaunch planning for 2 small trim burns executed shortly beforehand and should be approximately correct following the OMS-2 burn at 0/00:38 MET.

The prime end-of-mission deorbit opportunity is to KSC on Orbit 158 at 9/19:06 MET, with landing on Orbit 159 at 9/20:01 MET, or 11:31 AM CDT, Monday, September 19. Discovery's primary STS-64 payload is the LIDAR In Space Technology Experiment (LITE). Operating at both visible and invisible wavelengths, LITE will beam laser energy earthward from Discovery to detect scattered or reflected signals from the ground, clouds, and atmospheric particles using a 1-meter telescope in the payload bay. The success of LITE will have important implications for the atmospheric sciences, particularly meteorology.

Although visible laser pulses could damage the eye if viewed through telescopes with apertures larger than 6 inches, this hazard is considered remote. It is only present under clear skies for an observer located within the laser's beam width. On the ground, this beam width is about 1000 feet in diameter, with successive pulses spaced about every 2400 feet. As a precaution for the astronomical community, NASA will be posting detailed STS-64 trajectory information to the sci.space.shuttle Internet news group.

At approximately 3/23:15 MET, Discovery's crew will release the Shuttle Pointed Autonomous Research Tool for Astronomy 201 (SPARTAN 201) satellite from the Remote Manipulator System (RMS). The sun's corona will be studied by SPARTAN 201's instruments at ranges up to about 100 nm from Discovery until it's retrieved around 5/22:30 MET.

Date: (null)
From: (null)
Among the many STS-64 secondary payloads is the Shuttle Amateur Radio Experiment (SAREX). Contacts with schools and amateur radio operators worldwide are to be made using licensed crewmembers or a "robot" mode in

which earthbound calls are automatically acknowledged, then logged aboard Discovery.

MacSPOC v1.5 users will want to make note of a TDRSS configuration change tentatively planned from about 7/01:45 (Orbit 114) to 8/03:05 (Orbit 131) MET. Since MacSPOC v1.5 was published early last year, nearly all Shuttle operations have been supported by TDRSS elements stationed at 174 W and 41 W longitude. During this period, however, support will come from elements at 171 W and 46 W. This will lengthen the Zone Of Exclusion (ZOE) loss of contact with Discovery by a couple minutes. To follow the current TDRSS configuration during STS-64, be prepared to select "GeoSat Status..." from MacSPOC's "Update" menu. Refined TDRSS support schedules will be uploaded if they become available for release during the mission.

-Dan Adamo
adamod@aol.com

```
========cut here===========
Orbit 4 Predicted Post-Trim-2 Burn
1994 252 ( 9- 9) 20 30   .000
1994 253 ( 9-10)  1 17 53.646
  0.244960555478D+07  0.145346639919D+00
1    4
  0.323218300000D+07 -0.114394810000D+08  0.182439360000D+08
  0.245461180000D+05  0.657777500000D+04 -0.224000000000D+03
    2750.0  229966.0     79.00      2.72
```

End of Ham-Space Digest V94 #249
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